

AMENDMENTS TO THE CLAIMS

- 1. (Previously Presented)** A vibration piezoelectric acceleration sensor comprising:
a frame;
a first pair of beam shaped members linearly and oppositely disposed on the frame, each beam shaped member including:
an under part electrode;
a piezoelectric thin film; and
an upper part electrode;
a support body supporting each of the first pair of beam shaped members, the support body being adjacent to one end of each beam shaped member; and
a holding part holding the support body in a linear direction,
wherein the first pair of beam shaped members is extended and retracted by an acceleration transmitted to the support body through the holding part, wherein the acceleration is detected through a change in a natural oscillation frequency of the first pair of beam shaped members, and
wherein the holding part is constructed and arranged in a meandering manner.
- 2. (Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein the first pair of beam shaped members are linearly and oppositely disposed and define a first line that crosses a second line defined by a second pair of beam shaped members that are linearly and oppositely disposed on the frame, the first and second pair of beam shaped members configured to detect acceleration in the direction of two axes.
- 3. (Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein the first pair of beam shaped members are configured to extend and retract, such that a difference in the natural oscillation frequency therebetween determines an acceleration signal.
- 4. (Cancelled)**

5. **(Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein each of the first pair of beam shaped members, the support body and the holding part are formed from silicon.
6. **(Original)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein the piezoelectric thin film is made of PZT.
7. **(Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein each of the first pair of the beam shaped members has one end attached to the frame and one other end attached to the support body.
8. **(Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein the upper part electrode formed on each of the first pair of beam shaped members is extendedly formed along a center part of a respective beam shaped member.
9. **(Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein mass is added to the support body supporting each of the first pair of beam shaped members.
10. **(Previously Presented)** A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein a detecting electrode and a driving electrode form the upper part electrode , the detecting electrode and the driving electrode being disposed symmetrically with respect to a central axis crossing a longitudinal direction of each of the first pair of beam shaped members equally dividing each beam shaped member.
11. **(Cancelled)**

12. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in Claim 1, wherein the frame is configured to be attached to a main body, so that static acceleration and dynamic acceleration can be detected.

13. (Currently Amended) A vibration piezoelectric acceleration sensor including an element comprising:

- a frame;
- a first pair of beam shaped members linearly and oppositely disposed on the frame;
- a second pair of beam shaped members linearly and oppositely disposed on the frame, said first pair of beam shaped members being disposed linearly on a first line that crosses a second line on which the second pair of beam shaped members are disposed, each beam shaped member including:
 - an under part electrode;
 - a piezoelectric thin film; and
 - an upper part electrode;
- a support body supporting each of the beam shaped members, the support body being adjacent to one end of each beam shaped member; and
- a holding part holding the support body in a linear direction, the holding part being located between one of the first pair of beam shaped members and one of the second pair of beam shaped members, wherein each beam shaped member is extended and retracted by an acceleration transmitted to the support body through the holding part, and wherein the acceleration is detected through a change in a natural oscillation frequency of each beam shaped members, wherein the holding part is constructed and arranged in a meandering manner.

14. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein the first pair of beam shaped members and the second pair of beam

shaped members are configured to detect acceleration in the direction of two axes.

15. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein the first pair of beam shaped members are configured to extend and retract, such that a difference in the natural oscillation frequency therebetween determines an acceleration signal.

16. (Cancelled)

17. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein each beam shaped member, the support body and the holding part are formed from silicon.

18. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein the piezoelectric thin film is made of PZT.

19. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein each of the beam shaped members has one end attached to the frame and one other end attached to the support body.

20. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein the upper part electrode formed on each beam shaped member is extendedly formed along a center part of a respective beam shaped member.

21. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein mass is added to the support body supporting the beam shaped members.

22. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein a detecting electrode and a driving electrode are disposed as the upper part electrode formed on each beam shaped member, the detecting electrode and the driving electrode being disposed symmetrically with respect to a central axis crossing a longitudinal direction of each beam shaped member equally dividing each beam shaped member.

23. (Previously Presented) A vibration piezoelectric acceleration sensor as defined in claim 13, wherein the frame is configured to be attached to a main body so that static acceleration and dynamic acceleration can be detected.